

Table of Contents

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Washington, D.C.

STATEMENT OF:

PAGE :

THE HONORABLE JOHN BARRASSO, A UNITED STATES
SENATOR FROM THE STATE OF WYOMING

3

THE HONORABLE THOMAS R. CARPER, A UNITED STATES
SENATOR FROM THE STATE OF DELAWARE

6

BRIAN NESVIK, DIRECTOR, WYOMING GAME AND FISH
DEPARTMENT

15

KENT LEONHARDT, COMMISSIONER, WEST VIRGINIA
DEPARTMENT OF AGRICULTURE

21

WHIT FOSBURGH, PRESIDENT AND CHIEF EXECUTIVE OFFICER,
THEODORE ROOSEVELT CONSERVATION PARTNERSHIP

27

LEGISLATIVE HEARING ON A BILL TO CREATE A U.S. FISH AND WILDLIFE
SERVICE CHRONIC WASTING DISEASE TASK FORCE

Wednesday, December 4, 2019

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee met, pursuant to notice, at 10:05 a.m. in room 406, Dirksen Senate Office Building, the Honorable John Barrasso [chairman of the committee] presiding.

Present: Senators Barrasso, Carper, Inhofe, Capito, Braun, Boozman, Ernst, Cardin, Gillibrand.

STATEMENT OF THE HONORABLE JOHN BARRASSO, A UNITED STATES
SENATOR FROM THE STATE OF WYOMING

Senator Barrasso. Good morning. I call this hearing to order.

Today, this committee will examine draft legislation to address a growing wildlife health crisis. In October, this committee held a hearing to examine how disease impacts wildlife conservation as well as management. From that hearing, it became clear that one of the largest threats to the health of deer, elk, moose, and reindeer is chronic wasting disease.

Chronic wasting disease is a terrible, degenerative brain disease. It is highly contagious in animals. Symptoms develop slowly over time, but the disease is always fatal. Scientists and wildlife managers first detected the disease nearly 40 years ago. Since then, it has spread to at least 26 States and 4 Canadian provinces.

Since its discovery, scientists, State wildlife managers, and federal agencies have worked to understand how the disease spreads. From their work, we now understand that the disease is spread by prions. Now, a prion is not a bacteria; it is not a virus, there are no treatments available, antibiotics are not effective. There is no effective vaccine.

I learned about prion disease in medical school. Prions are effectively misfolded proteins. When these proteins are

abnormal, they cause similar diseases in sheep and in humans.

How those prions spread and infect other animals still remains a mystery. Research has not yet determined whether the disease is transmitted through nose-to-nose contact, or through animal waste, through carcasses of infected animals, or some other way. Some studies have even suggested prions can remain in the soil for up to 16 years.

There is a lot we don't know yet about this disease, including its risks to humans. That is why today we will discuss a draft bill to create a Chronic Wasting Disease Task Force at the U.S. Fish and Wildlife Service. This task force represents an opportunity to bring States, relevant federal agencies, scientists, managers, and farmers to one table. Together, they can coordinate prevention and control efforts, and target future research to address unanswered questions.

States manage deer, elk, moose, and reindeer populations that are at risk. States like Wyoming and West Virginia manage wild herds and collect data from game farms. They have invested countless hours and dollars to develop strategies that may not always be consistent across State lines.

When he testified before this committee in October, Dr. Walter Cook, who is the wildlife population health veterinarian at Texas A&M, emphasized the need to coordinate research, to work on containment efforts, and on public education. He

stated, "It would be ideal if a group of respected chronic wasting disease authorities could determine common management needs and overall public message."

To that end, this draft bill would combine expertise about wildlife from the U.S. Fish and Wildlife Service, data on farmland animals from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, and on-the-ground experience from the affected States.

This is a fight that must be fought on multiple fronts; in the wild, where the deer, the elk, and the moose roam vast spaces and on the farms that breed and raise these animals. Unchecked, this disease could truly be catastrophic for wildlife and local economies.

Across this Country, whole industries are built around wildlife, hunting, tourism, wildlife watching, and deer and elk farming. The Muley Fanatic Foundation in Wyoming told me that "There is no bigger threat to our big game populations than the spread of chronic wasting disease."

I believe this task force, and the pooled resources that it leverages, can be a turning point in the national fight against chronic wasting disease. We need a roadmap for the future, and sharing information is the place to start.

I would now like to ask Ranking Member Carper for his opening statement.

[The prepared statement of Senator Barrasso follows:]

STATEMENT OF THE HONORABLE THOMAS R. CARPER, A UNITED STATES
SENATOR FROM THE STATE OF DELAWARE

Senator Carper. Thanks, Mr. Chairman. Who is from Wyoming?

Senator Barrasso. The guy in the back, right there, is from Wyoming, with the mustache. The guy that looks like a rugged rancher, the individualist, a resilient guy. Looks like the Marlboro Man.

Senator Carper. I see him, I see him. There you go.

[Laughter.]

Senator Carper. Whether you are from Wyoming, or some other State, we welcome you warmly. Thank you for being here.

Mr. Chairman, colleagues, and to our witnesses and audience, although chronic wasting disease is an unfamiliar topic to most of us in the First State, that is Delaware, our neighbors in Maryland and nearby Pennsylvania are dealing with it firsthand. I just spoke with Senator Cardin before he went off to be in a Foreign Relations Committee hearing, and he is going to try to get back. He said that they deal with it in Maryland, Western Maryland, up in that part of the State.

In the spirit of the golden rule, Delaware, my State, has an interest and an obligation to help prevent the spread of this deadly disease which adversely affects deer populations in many of our sister States. Deer are an important part of our

ecosystem and link in the food chain. They are also an attraction for wildlife watching and hunting, two recreational activities enjoyed by our State's residents and visitors alike. In fact, I am told that seven out of every ten hunters in Delaware hunt deer.

Spending associated with hunting and wildlife watching provides a major boost to our State's economy. The money spent on equipment, on watching, and on transportation and so forth supports jobs and local businesses as well as many of our State's conservation efforts.

Additionally, the sale of all hunting licenses, tags, and stamps, when combined with funds generated from taxes on hunting equipment, comprise approximately 60 percent of Delaware's annual budget for wildlife programs, 60 percent. Furthermore, hunting in Delaware is Delaware's primary tool for deer management, as it is in many other States.

If chronic wasting disease spreads into Delaware, and it could, it would deter these hunters. In addition to the impact that it would have on our wildlife management revenues, it would force our State to revert resources to alternative deer management tools. So, while we may not have any context for managing the impact of chronic wasting disease in my State, we can certainly understand the major threat that it poses to States' environments, to the recreational opportunities, and

their economies.

With the disease now detected in some 26 States nationwide, it is more important than ever that we work together to stop its spread and support the States, the tribes, and federal agencies grappling with its impacts. The legislation we are considering today encourages federal agencies and States to better coordinate their monitoring, their research, and management efforts.

With several federal agencies implicated in addressing the disease, creating a federal Chronic Wasting Disease Task Force could be one step in the right direction. In addition, as I think we will hear from our witnesses today, we know the task force is only part of the solution to the problem. The magnitude and severity of this disease demands a proportionate federal response, which should include meaningful funding.

Over the past two Congresses, we have held multiple hearings on the conservation challenges facing our States, including management of wildlife diseases, human-wildlife conflicts, and species conservation. Time and again, the message from the States has been one that is clear. The best way the Federal Government can help States address conservation and management challenges is to ensure, to help to ensure, that they have adequate resources to do their job.

It is not all on us. It is not all on the Federal

Government. It is a shared responsibility. States need to do their part. We have a responsibility as well.

As many of my colleagues have heard me say in this room, things worth having are worth paying for. I believe our Nation's precious wildlife resources are worth having, and I think most Americans would agree. That means we should work together to address both State and federal funding needs while thinking creatively about how to pay for these investments.

Addressing chronic wasting disease is a high priority. Our committee is also pending before us numerous bipartisan wildlife conservation bills that will help protect species that I hope we will seriously consider as well. Each of our witnesses today brings expertise on many of these matters, and we look forward to hearing from you and to the conversation that will follow about how to comprehensively address chronic wasting disease and meet other conservation needs.

Again, thanks Mr. Chairman, for pulling this together. Thank you all for coming, sharing your thoughts with us, and responding to our questions. Welcome.

[The prepared statement of Senator Carper follows:]

Senator Barrasso. Thanks so much, Senator Carper.

Before we hear from our witnesses, I want to first introduce Brian Nesvik, who is the director of the Wyoming Game and Fish Department. He is no stranger to this committee. You have previously shared your wildlife expertise with this committee. You have been intimately involved in Wyoming's chronic wasting disease program for many years and a longtime game warden in Wyoming.

I also had the pleasure of sharing Thanksgiving with him and several visits with him overseas, I think starting in 2009, when you were deployed to Kuwait and with incursions into Iraq, commander of the 2nd 300 field artillery unit with a mission of running convoy operations into Iraq, 2-300th. My father-in-law, Bob Brown, was a member of that group in the Korean War, and there is a long history.

I just had a chance to be with the 2-300th in Afghanistan last Thursday, as they are there continuing to keep us safe and free, but I appreciate your role commanding that group in the past.

Director Nesvik, I will thank you for your service to the Country, for all you do for Wyoming. Before we get to your testimony, I was going to ask Senator Capito if you would like to please introduce a visitor and a person who is going to testify today from West Virginia.

Senator Capito. I would, and thank you Mr. Chairman.

It is my pleasure to introduce my friend, our agriculture commissioner, Mr. Kent Leonhardt. He was elected in 2016 as our commissioner, and before that, he was in the West Virginia State Senate, representing my hometown of Glen Dale, West Virginia.

Throughout his tenure, Commissioner Leonhardt has really been an advocate for West Virginia farmers and the mission of the department. They have endeavored to break down silos to improve government efficiency, as we all know, that is not the easiest thing, and are working to update regulations to move our West Virginia agriculture industry forward. I thank him for that.

In addition to being a farmer himself, he is also a veteran. He served 20 years in the United States Marine Corps before retiring with the rank of Lieutenant Colonel.

I thought it would be interesting to point out to the committee that together, Commissioner Leonhardt and I have worked on a project of agri-therapy, a pilot program with the Woody Williams VA Medical Center in Huntington, West Virginia. This program will hopefully serve as a model to meet the mental and behavioral health care needs of our veterans, as well as provide them with new career opportunities in agriculture.

I want to thank Commissioner Leonhardt for his commitment to breaking down barriers, but also how we can better prevent

the spread of chronic wasting disease withing the wild and agricultural deer population. I am proud to say that West Virginia is ahead of the curve in this regard, thanks to the commissioner's efforts. While we still have much work to do, I am sure that with his experience, we will be able to move the ball forward.

I thank him for coming today, and I look forward to the panel. Thank you, Mr. Chairman.

Senator Barrasso. Thank you. Senator Carper.

Senator Carper. I just want to say to our Marine friends, and Army? Yes, Navy. Welcome. We have a football game coming up.

[Laughter.]

Senator Carper. I like to say to my friends who wear different uniforms, I say, different uniforms, same team, except when we play football. I spent a lot of years in the Navy, and we are just honored and grateful for your service. I am not sure if you have military experience as well. You are still young enough, you could survive.

[Laughter.]

Senator Carper. We will work you into the lineup. Thank you, and as a native of West Virginia, Beckley County, great to see you. Thank you.

Senator Barrasso. Thank you, Senator Carper. Our third

witness today is Whit Fosburgh, who is the President and Chief Executive Officer of the Theodore Roosevelt Conservation Partnership. We welcome you as well.

We are going to start the testimony with Brian Nesvik. Brian, please proceed.

STATEMENT OF BRIAN NESVIK, DIRECTOR, WYOMING GAME AND FISH
DEPARTMENT

Mr. Nesvik. Good morning, Chairman Barrasso and Ranking Member Carper and members of the committee. I appreciate the opportunity to appear before you to discuss a wildlife management challenge that, as the chairman outlined, is certainly important to my State.

While I speak to you today from a Wyoming wildlife manager perspective, this disease is a national problem. CWD continues to spread across our Country, and its impacts continue to increase, commensurate with changes in its distribution and prevalence in wild ungulates. This disease has been documented in 26 U.S. States and 3 Canadian Provinces. I direct your attention over to this map that is a good visual depiction of where the disease has been documented in the United States and Canada.

Aside from wildlife health problems and potential implications to how wildlife are managed, this disease has economic effects and indirectly impacts the work State agencies are able to conduct on other high conservation priorities. The Association of Fish and Wildlife Agencies, or AFWA, estimates the States will spend \$84 million on testing and surveillance alone over the next five years.

Infrastructure at the federal level that facilitates cross-

State and inter-agency coordination, planning and synchronization, is needed in this discussion draft bill, which would create a United States Fish and Wildlife CWD task force provides it.

This is a national problem that requires the collective thought, wisdom, and experience of members of the government, academia, non-governmental organizations, and elected leaders. Failing to find solutions to CWD could have significant implications to the manner in which wildlife is managed in our Country. Your consideration of this discussion draft is important, and I applaud your commitment to consider its provisions.

As you have read in my comprehensive written testimony, new research has changed the way wildlife managers evaluate the threat posed by CWD to deer, elk, and moose populations. Prior to research from the past five to ten years, most wildlife managers and members of the public recognized the disease, but took the view that impacts to wild herds were minimal at the population scale. We now know that with high prevalence levels, the disease can limit and even reduce the health and viability of certain wildlife populations. Our citizens expect us to do our level best to find some solutions.

In Wyoming, we have recently redoubled our efforts to explore new options and change the way we think about attacking

this problem. Our Game and Fish Commission has a long history of dealing with the disease ever since its discovery four years ago. Recently, our commission tasked the department with looking at all options to find solutions to slow its spread and to seek answers to tough questions requiring extensive research. Based on their leadership and resourcing, our department engaged in its own vaccine research in the recent past.

Our department has worked at the regional and national level with other experts to share ideas and identify potential management options. Our department recently convened a statewide citizen working group made up of 31 members of the public charged with studying the disease and making recommendations for future management.

Additionally, we established a committee comprised of senior leaders from across 20 Wyoming State agencies to specifically look for solutions to deal with carcass disposal, which is another problem that is created by CWD. Wyoming Legislature's Travel, Recreation, and Wildlife committee took this issue up for interim study, and like you, has received testimony regarding the disease, resources required to deal with it, and future plans to enhance our efforts.

We have found that addressing this problem using diverse teams comprised of members with varied skill sets is the most productive. My judgement is that this is no different at the

national level, and the complexity and breadth of this problem requires formalizing this type of approach, as is outlined in this discussion draft before you today.

Important outcomes of a national CWD task force could include improved information sharing on the best practices and pooling of resources to find the most important, but very expensive CWD research. Additionally, bringing together the most brilliant and well-versed scientific minds gives our Nation the best chance to find effective and meaningful solutions.

Cross-state coordination relative to carcass movement and disposal is also important, requiring planning and deliberate action at the regional and national level, and would undoubtedly be a focus of a CWD task force.

As you have seen in my written testimony, there have been national efforts initiated in the past and Federal assets allocated to this problem. In the absence of information indicating direct effects on wildlife at the population level and a lack of scientific links to human health, funding support waned in 2012. Federal funds were redirected to other high-priority needs, and consequently, work on this disease at the national and State level declined.

Unfortunately, funding for CWD research diminished before potential strategies for controlling and managing the disease could be tested and evaluated. Taking a new look into the

allocation of federal resources in the face of new information is wise, and this discussion draft establishes the framework for this new look.

Again, I thank you for your leadership on this issue, and I look forward to answering your questions.

[The prepared statement of Mr. Nesvik follows:]

Senator Barrasso. Thanks so much for your testimony. Mr.
Leonhardt.

STATEMENT OF KENT LEONHARDT, COMMISSIONER, WEST VIRGINIA
DEPARTMENT OF AGRICULTURE

Mr. Leonhardt. Thank you Chairman Barrasso, Ranking Member Carper. Thank you, Senator Capito, for the kind introduction, and members of the committee, the opportunity to talk about chronic wasting disease with you today.

As the Commissioner of Agriculture of the State of West Virginia, I believe the establishment of a CWD task force is a measure that is long overdue. I am one of 12 statewide elected commissioners of agriculture; and as such, I report directly to the citizens of my State. There is a lot of concern surrounding CWD, especially from our many sportsmen, as well as our captive cervid farmers.

Because I am elected, I have the unique opportunity to help shape legislation and policy surrounding issues like CWD. What my staff and I have found is that many of our colleagues from other States operate under laws and regulations much different than our own.

I would also like to point out to the members of this committee that every State department of agriculture has different responsibilities. In West Virginia, deer farms are regulated by my department. Deer farms in West Virginia raise white-tailed deer, elk, plus exotic reindeer and fallow deer. Wild white-tailed deer and elk populations are regulated by the

West Virginia Department of Natural Resources under the Commerce Department and the Governor. While the Department of Agriculture and DNR work closely together on many projects, we sometimes disagree on legislation and rules because the uncertainty of CWD data does not help that at all.

There are various groups and agencies performing some form of research to better understand this slow spreading, yet potentially devastating disease. In February of 2019, I asked USDA's Animal, Plant, and Health Inspection Service to undertake more research concerning CWD. There was pressure being placed on legislators to make and enforce laws that were not based on science, but a feeling that something must be done.

My position has always been that we must legislate from the application of sound science. Farmers are already subject to uncertain weather and uncertain market conditions. Successful farm businesses must have certainty in regulations. This includes the production and interstate transportation of agricultural products, which does include deer, venison, deer embryos, and deer urine, et cetera.

APHIS responded with an initial literature review, which I have attached to this testimony. It is clear from the current state of research we do not have certainty in the science of CWD and the ability to make sound judgements that may affect the livelihood of many farmers and hunting related businesses.

I am encouraged that research is ongoing, but more is needed, and it does need to be better coordinated to maximize limited research dollars.

Deer farming in West Virginia is a growing industry. Deer farming has been growing nationally, with the sale of deer urine alone reaching \$16 million in 2016. For West Virginia, deer farming is an opportunity to diversify our economy and potentially use land that is no longer viable under modern agricultural practices, or even restore value to our abandoned mine lands.

Although found in limited areas in West Virginia, to date in West Virginia we have never had a farm deer test positive for CWD. We test all animals going to slaughter for meat and 10 percent of the animals harvested in hunting operations.

West Virginia has long supported the cooperative CWD Voluntary Herd Certification Program between West Virginia deer farms, State animal health and wildlife officials, and APHIS-Veterinary Services. Currently, 30 of the 36 West Virginia deer farms participate with 28 certified with the program standards. Two newer farms do not have five years of negative results at this time. Six licensed hunting preserves do not participate, as they do not relocate deer.

It is important to point out that any additional studies on the prion-related diseases will add value to prion disease

research for known human diseases and other domesticated livestock. Deer farms should be part of this research, especially if we are a Nation that wants to develop immunotherapies for domesticated herd protection and eventual suppression and eradication of diseases in the wild.

Therefore, my opinion is that the spread of CWD is mostly carried by scavengers. You will see that in some of the studies I provided. An infected deer that dies from any cause, left unattended, will soon be consumed by scavengers, most commonly, a winged variety. The viable prion living in the lymphatic system or nervous tissue is then consumed, and the prion passes through the digestive track and eventually deposited miles away. This could explain why the disease has appeared in very tightly closed and monitored herds or in areas not adjacent to known infected areas.

Therefore, I believe a close study of infected carcasses and scavengers would yield tremendous insight. We know the prion survives on vegetation outside an animal for a long time. It may be a while before we are confident with a live test for the disease. We may be taking baby steps and slowing the spread, but it must be based on sound science.

I looked at the proposed legislation, and I have three recommendations. At least, if we could, at least have one of the non-governmental positions on the task force be an

experienced and respected deer farmer; that the bill clarifies the funding and need for coordination and education information campaign between State agencies, agriculture groups, and the hunting public; and that any legislation resulting from this task force be specific and not left up to interpretation.

Thank you very much for this opportunity. I look forward to your questions.

[The prepared statement of Mr. Leonhardt follows:]

Senator Barrasso. Thank you very much for your thoughtful testimony. Mr. Fosburgh.

STATEMENT OF WHIT FOSBURGH, PRESIDENT AND CHIEF EXECUTIVE
OFFICE, THEODORE ROOSEVELT CONSERVATION PARTNERSHIP

Mr. Fosburgh. Thank you, Chairman Barrasso, Ranking Member Carper, and the rest of the committee to have the ability to testify today on chronic wasting disease.

Simply put, CWD is the greatest threat to hunting and conservation in America today. To reiterate some key facts, CWD is 100 percent fatal, and impacts all species of North America's wild deer: white tails, mule deer, elk, moose. There is no vaccine; there is no cure.

CWD has spread from Colorado, where it was found in a captive deer facility in 1967, to 26 States today. It can spread slowly in the wild. It spreads quickly when live or dead animals are moved by people. CWD infects an area; once it happens, it is almost impossible to eradicate. While CWD has never been documented from jumping from deer to humans, the CDC recommends against eating any CWD-positive meat.

The prions that cause CWD can be taken up in plant matter, including alfalfa and corn. Norway, which is trying to battle an outbreak of CWD in a reindeer population now bans importation of any agricultural products from CWD-positive areas.

You can't cook your way out of CWD. The prions remain viable to 1700 degrees Fahrenheit. Smart and aggressive management can greatly slow the spread of CWD and keep it at

background levels.

Apart from some limited research funding, the Federal Government has not been involved in the CWD fight for wild deer in a significant way. It is time for that to change.

With the addition of the legislation before the committee today, there are now at least five bills in the Senate dealing directly with CWD. All are a step in the right direction, but none, frankly, are aggressive or visionary enough to truly address the problem.

It is important to note that the single most important thing Congress can do to stop the spread of CWD is to give the States the resources they need to track and fight the disease in the wild. Congress provided strong and consistent funding to the State wildlife agencies through 2011, but that funding ended, and the States were forced to take those funds from other sources to deal with the disease. Some States simply stopped looking for it.

The 2020 House Agricultural Appropriations Bill reestablishes federal funding for CWD by providing \$15 million to State wildlife agencies for CWD surveillance and testing. That bill is currently in conference with the Senate, which provides a measly \$2.5 million for wild deer in its bill.

If the members of the committee care about stopping CWD, I would urge you to reach out to your colleagues on the

Appropriations Committee and ask them to support the House level of \$15 million in the Agricultural Appropriations Bill.

Coordinating and expediting the federal response to CWD is also important, and the task force proposed by this committee could help do this. Today, the Department of Agriculture has primary jurisdiction over CWD. Part of the reason we are in the situation we are today is the department's abject failure to control the disease in captive deer populations.

APHIS, the Animal and Plant Health Inspection Services Herd Certification Program has proven utterly ineffective, allowing CWD-positive deer to move across State lines and CWD-positive deer to persist on the landscape. The Department of the Interior, charged with maintaining viable populations of wild animals on public lands, has been far more aggressive in raising the alarm about CWD, largely thanks to Secretary David Bernhardt's leadership, but Interior needs a partner at USDA and a strong relationship with the CDC.

Deer hunting in America is a \$40 billion a year industry, and 80 percent of America's 11.5 million hunters consider themselves deer hunters. While the overall hunting numbers have been declining, there has been growth in the "field to table" food movement, where new hunters are attracted to the idea of locally sourced, organic protein they can harvest themselves.

Collectively, hunters pay the freight for the vast majority

of the on-the-ground wildlife conservation work in this Country. Through the purchase of licenses, conservation stamps, firearms and ammunition, hunters contribute billions of dollars to wildlife habitat conservation every year, work that directly benefits non-hunters as well.

As questions persist about who to believe and what to believe about CWD, many hunters may find it easier and simpler just to stop hunting, which could have dire consequences to conservation funding in this Country.

CWD is a symptom of systematic failure to invest in conservation. That is why it matters, because hunters and anglers ask this committee to help address the CWD crisis, as well as move legislation that reauthorizes the North American Wildlife Conservation Act and authorizes the Pittman Robertson Modernization Act and the National Fish Habitat Conservation Act. These bipartisan, non-controversial bills are waiting for passage through this committee and then on to the Senate Floor, Together, they comprise a considerable segment of the sportsmen's legislative agenda for Congress.

As noted before, CWD has forced many State agencies to divert funds from wetlands or fish habitat conservation to help meet the challenge posed by the disease, so it is altogether relevant and appropriate to move all these packages together.

Again, thank you, Chairman Barrasso, Ranking Member Carper,

for elevating the profile of CWD crisis in the Senate. I would ask you to be aggressive in dealing with the response.

I look forward to your questions.

[The prepared statement of Mr. Fosburgh follows:]

Senator Barrasso. Thank you, all of you. We will start with rounds of questions of five minutes each.

Let me start with a question for both Brian Nesvik, as well as Kent Leonhardt. A couple of things.

In October, we had Steve Guertin here, Deputy Director of policy and Fish and Wildlife. He testified on wildlife health issues before the committee. He emphasized the need for "high level coordination and collaboration between federal agencies, State agencies, among others, to address this growing threat."

To both of you, do you agree that better cross-jurisdictional collaboration is required, and if so, how can a task force really enable that kind of collaboration?

Mr. Nesvik. Thank you, Mr. Chairman. First, the short answer to your question is yes. I will elaborate a little bit.

First of all, I will tell you that there are many entities out there that are passionate and focused and understand the magnitude of this problem. You have the Association of Fish and Wildlife Agencies, basically comprised of State wildlife management agencies from across the Country.

As was mentioned by one of the witnesses here today, we have, the federal agencies have taken an interest and have enacted several regulations as well as some other programs to address CWD. There is a science consortium that just occurred in September with 46 leading experts on this. That is a

separate entity.

Then you have non-governmental organizations that are also very interested in it, as we have heard from one of our witnesses here today.

I think what this type of infrastructure, this type of task force that is contemplated in this discussion draft would do, is provide a venue for all of those entities to come together, provide, I will use a military term, a unity of effort that would gain some efficiencies in the way that our Country attacks this problem.

I would also say that I think that there is a scientific side of this, as well as a policy side of this. Bringing those type of both the scientific experts as well as elected leaders and other folks that represent elected leaders together, you have an opportunity to address both the science and the policy.

I think, also, it provides an emphasis on not just research, but applied research, research you can actually take out on the ground and use to manage the problem. That would be my thoughts.

Senator Barrasso. Mr. Leonhardt, anything you want to add to that?

Mr. Leonhardt. Obviously, Senator, I do agree with this legislation and I don't have much more to add. We also have to remember, normally, I am a small State guy, States' rights,

things of that nature, but when you have a disease that is spreading, obviously, to other States, it is time for the Federal Government to step in and take a little bit of a lead on that and coordinate those efforts.

We also need a central clearing ground, as I mentioned earlier, for information. Sometimes, information gets out there, and if we don't have a place to go to and actually get the facts, a lot of States will act on emotion, and we could actually hurt our sporting and our agricultural activities if we are going off of emotion and not going off of actual sound science.

So I support this legislation and I hope we can move forward with this.

Senator Barrasso. Brian, you mentioned in your written testimony that additional research is needed to inform future decisions. As the research needs evolve over time, how do we best target the research to address the highest priorities?

Mr. Nesvik. Thank you, Mr. Chairman. Excellent question. I would say first that our Wildlife Health Committee of the Association of Fish and Wildlife Agencies to spend some time and put a little bit of brain sweat into this, thinking about what those priorities might be. They have identified four priorities, and I would start there.

First of all, with prion detection and diagnostics.

Basically, to summarize that, it is developing new ways to live test animals, which is really important with this particular disease, to be able to know if they are carrying the disease while they are still on the hoof.

Secondly, disease biology and pathogenesis is another priority that has been identified. Really, the short story there is looking at transmission. We still, as you pointed out, Mr. Chairman, don't know how this disease is spread. We know some, we know a little bit about that, but we don't know everything we need to know right now.

I think management and ecology of the disease would be a third priority, specifically as it relates to the host or the carrier. We need to know what the role of soil and plants is in how this disease is carried and transmitted.

I also think that the human dimensions aspect of this is really important. Because folks, when we are talking about management actions like we are with CWD, some of those are pretty hard decisions, and it means that people have to be willing to allow non-traditional management applications that are sometimes not very popular. So there is a human element of this to be able to make sure folks understand.

The second part I would say there, Mr. Chairman, is that this research consortium that I talked about that met in September, they too have also identified very specifically and

in the weeds some ideas for research priorities. They have got pretty specific. I think relying on the priorities from AFWA as well as the ideas that were developed by this research consortium would be a great place for this task force to start, if it were to be formed.

Senator Barrasso. Senator Carper.

Senator Carper. Thank you all. Really exceptional testimony, very, very good. I am impressed.

I think I will start with a question, first, for Mr. Fosburgh, and then I will have some questions for everybody. We appreciate each of you for your leadership and your testimony. I want to ask you, Mr. Fosburgh, if you would, just to elaborate on why chronic wasting disease is an issue that everyone should care about, including the 24 States that are not affected directly by it.

How might the disease impact broader species and habitat conservation efforts across the Nation, including those other 24 States?

Mr. Fosburgh. Great question, Senator. As I mentioned, deer hunting is a \$40 billion a year industry and generates about \$5.5 billion in taxes, many of which go back to the States for fish and wildlife conservation. As Brian knows very well, even though that money is paid for by hunters, a lot of the work they do is on non-game species. Because there is no dedicated

funding source right now for non-game species.

So the hunters dollars we use to protect butterflies and reptiles and amphibians and other things like that, as necessary. We get that, and we understand that, and we support that. We also want more money for it.

If the number of hunters goes down, and the decline is pretty precipitous right now, it is only going to get worse in the face of CWD if people think they can't eat the meat, then that is a huge crisis in terms of funding those States to do everything, not just manage white-tailed deer populations. I think that is really the threat we see moving forward.

Senator Carper. All right, good. Thank you.

Maybe a question for Mr. Nesvik. What kind of name is that? Where are you from? Where is your family from?

Mr. Nesvik. It is Norwegian.

Senator Carper. Good. As spending on chronic wasting disease has increased in Wyoming, how has that impacted your agency's ability to manage other wildlife species? The second half to that question would be, what impact has chronic wasting disease had on your State's budget in Wyoming, on budget and staff resources?

Mr. Nesvik. Excellent question. Thank you, Ranking Member Carper and Mr. Chairman. I would say that first, there is many second and third order effects of this particular disease.

Actually, in Western Wyoming, this disease goes head-on with another disease, namely brucellosis, where we have a situation where we feed elk on feed grounds. One of them is the National Elk Refuge, established over a hundred years ago.

The purpose of those feed grounds is to separate cattle and elk during the winter when brucellosis can be transmitted. Our elk carry brucellosis, and that is a significant issue if you are a livestock producer.

But we also know that concentrating animals in the winter can, at least if once CWD arrives, can increase the spread or can more rapidly allow the spread of the disease. Elk naturally get in large groups in the wintertime anyway, but concentrating them on the same piece of ground over a long period of time can enhance that.

So it has other wildlife management effects. The actual budgetary effects are pretty hard to quantify because of that. We do spend a significant amount of our own money to monitor the disease. We conduct, we do testing now on, I think last year, we had about 7,000 deer and elk and moose that we tested, and that costs money. We hire folks to go out and actually collect those samples throughout the year.

There are definitely budgetary impacts and those dollars, they are sportsmen dollars that are spent on monitoring this disease and trying to develop research for the disease, do take

away from other conservation priorities. We have many of them in Wyoming because we have a tremendous wildlife resource.

Senator Carper. Thanks.

Back to you, Mr. Fosburgh, if I could, for my third question. Would you elaborate on, I think you mentioned two pieces of legislation, North American Wildlife Conservation Act as well as National Fish Habitat Conservation Act. We would appreciate if you would just elaborate a bit on the importance of these two pieces of legislation that you have touched on. In addition to these reauthorizations, do you believe the government should be investing more than it currently does in conservation and habitat restoration?

Mr. Fosburgh. Thank you, Senator. The North American Wildlife Conservation Act has a long history of basically investing in wetland restoration and protection around the Country. It is been a critical for the resurgence in waterfowl populations since the lows back in the 1930s.

The National Fish Habitat Conservation Act is something very similar that would be on the fish side. It is in existence now, but it is not been ever authorized by Congress, essentially voluntary. What it really represents is that commitment of resources to wetlands, to waterfowl, to fish, to streams, to watershed health that is really in everybody's interest. We think those are a critical part of the conservation funding

equation that Congress needs to think about when it thinks about CWD.

I also mentioned in my testimony the Pittman Robertson Modernization Act, which would allow the State agencies to use some of those excise dollars to really get the word out to sportsmen about hunting, about CWD, about proper care. They can't do that right now the way the legislation is written. They can do it on the fish side, the Take Me Fishing campaign you have heard of, that was what was done on the fish side. That is been incredibly impactful in terms of turning around the trend of declining fishing participation.

So I think all this, we see it together as components of the conservation funding equation that are critically important for sportsmen and the Nation.

Senator Carper. Good. Take Me Fishing, I like that.

Mr. Fosburgh. Anytime.

Senator Carper. Thank you.

Senator Barrasso. Senator Inhofe.

Senator Inhofe. Thank you, Mr. Chairman. I am sure it is evident to the three of you by this time that you three are experts and there are no experts on this panel.

[Laughter.]

Senator Inhofe. The questions we would ask and be curious, the notions that we have probably seem pretty basic to you. We

are in a learning situation.

I didn't know until we were preparing for this hearing that we are doing a good job in Oklahoma. It is my understanding, for the benefit of my colleagues, we are talking about two different areas of animals, whether we are talking about deer or elk. Those who would be in captivity, and then others in the wild.

If you look, I have a map here that came out of the CDC talking about the prevalence of this. And I look at my State of Oklahoma, and I am not saying this in a braggadocio, I didn't even know it until yesterday, that we are doing a great job. If you look at our surrounding States, this is only in the wild, now, these figures. You have in Colorado 27 counties that have had this incident. My neighboring State of Arkansas, 12 cases, my neighboring State of Kansas, 35 cases; in Oklahoma, zero. We have not had any.

We have had two cases in the last 21 years that are in captivity. But what could be the difference here, when we are talking about the same geographic areas, about the same numbers of deer populations there, that we don't have any, and the only one we do have are the two that were in 1998 and then this year? We are going to start with your side. Maybe we are doing something right that no one else knows about.

[Laughter.]

Mr. Nesvik. Well, that is a great question, Senator. The first thing that I would question, if I was going to try to figure out and get to the bottom of what your question is, is the amount of surveillance and the amount of testing that is going on. Certainly, we have been testing at a very high level for a long time in Wyoming, so we have detected, we have been able to follow the spread of the disease as it is moved across our State.

Our neighbor to the north has had CWD on both sides. Montana has had it to the north, in Canada, and also to the south, in Wyoming. It is been only very recently in the last several years where they have actually detected it in wild herds, but they were far, far, far behind Wyoming.

The way that this disease moves and the way that it spread is one of those research challenges, and one of the reasons I think that we need to learn more about this disease, so we can explain things like what you just explained in your question.

Senator Inhofe. Anyone else have a thought on that?

Mr. Fosburgh. I think probably that Oklahoma may be doing things great, but I would just suggest that it probably has to do with surveillance and testing, because when the monies were dried up, a lot of the States stopped looking as hard, particularly if they didn't think they had it.

I think that even if they don't have it now, if you are

surrounded by it, you are going to get it. So you had better put some systems in place that either prevent it from coming in or deal with it once it arrives in your State.

Senator Inhofe. Mr. Leonhardt, you mentioned in your verbal testimony that you want to be sure that we should be specific and not left up to interpretation. What did you have in mind when you talked about that?

Mr. Leonhardt. There is a lot of discussion out there on how the disease is transmitted, whether it is nose to nose, whether the captive farms have to have a double fencing, whether it is transmitted. They have tried to outlaw the deer urine side of things.

To me, if we had a live test, obviously, we would know whether the animal is infected or not, but if you could find chronic wasting disease in the urine, then we would already have a live test. There is legislation in my own State, they have tried to take the collection of urine, which is a business for some of our deer farms, tried to eliminate that source of revenue stream for the deer farm because people believe that is found in the urine, even though it is not necessarily. If it was found in the urine, we would have a live test.

Senator Inhofe. I see. All right, that makes sense.

Mr. Fosburgh, I was relieved when you said that there are no cases that have been identified where eating the meat is

going to be transferred. Do you all agree with that?

That is a relief to know. We are a big deer-hunting family, and I almost had something new to worry about.

[Laughter.]

Senator Inhofe. The last thing I would ask you do you all agree, also, I was not aware of the deer hunting decline that is taking place. I think you said that in your testimony. Do you know what that is attributed to?

Mr. Fosburgh. I think there are a variety of issues at play with the decline of hunting. It is socioeconomic. Less kids in the wild, rural parts of this Country than there used to be. It is much harder to get out in the places to hunt if you are in an urban area. Places that used to be available just to walk in and hunt are now subdivisions in a lot of places.

It is just harder to access; it is harder. The hunting education requirements are tough for a kid who is in high school and balancing a bunch of sports teams and studying. I think there are a host of reasons, but I know one of them that is not helping us is this notion that CWD has now spread to 26 States, so people are scared.

Senator Inhofe. I would say so. Thank you, Mr. Chairman.

Senator Barrasso. Thank you. Senator Cardin.

Senator Cardin. Let me thank all of our witnesses and thank the Chair for this hearing.

As Ranking Member Carper pointed out, the State of Maryland is one of those States where we have discovered CWD in the western part of our State. We believe is it a regional issue in the western part of Maryland, including West Virginia and Pennsylvania. So it is not limited to our State. Our State is taking what they believe is appropriate action.

I think I have a fundamental question. I appreciate the leadership of the Chairman on trying to increase capacity here through getting the facts out. I also appreciate all the work that our different States are doing. But it seems to me that CWD will not be the last case of a mysterious disease appearing in our wildlife. We should have the capacity to try to stay at least even with the curve, if not ahead of the curve, in understanding these types of diseases that affect our livestock and affect the wildlife.

We have already pointed out the economic impact; there is a public health impact but also the economic impact. What do we need to do as far as building the type of infrastructure that would give us the information we need, so rather than trying to contain the problem, we can eliminate the problem? What suggestions do you have?

Mr. Fosburgh. Well, I will jump in in first, but I think the others probably have more thoughtful comments. I think it is a great question. Prion disease in particular is pretty

scary; you don't know where the next one is going to pop up. Part of the funding that is currently going through the Interior Appropriations Bill would provide an extra \$1.7 million to the USGS and to basically the prion centers around the Country to look into this.

I think that we need to maintain that capacity, because if it is another prion disease that pops up and we have mad cow disease, we have scrapie, so they manifest themselves in different animals in different ways. We need to have that capacity in place.

Second, the part of the money that is coming through the Ag Appropriations Bill are really from the State agencies to provide, for example, do testing. Right now, a lot of States are limiting factors. If you are a hunter, and you shoot an animal, and you want to send it in to get tested, it may take two or three weeks to get those results back. That is because of just the lack of testing facilities allowed in the States.

Part of that money that the States would get would allow them to expand that capacity, and it may be CWD today, it may be another disease, but we have that testing capacity and those labs up and running in the States. I think we can much more quickly respond to anything that does crop up.

Senator Cardin. Thank you. Yes, sir.

Mr. Leonhardt. Thank you for the question, Senator. I

agree with Mr. Fosburgh on his comments about the labs.

West Virginia has one of those laboratories that does, within my department of agriculture, do development of testing for other USDA projects. Some of our chemists and microbiologists will go out and teach other laboratories around the Nation. That type of network continues.

If we could get more funding at the federal level, that is all a part of this whole study group. Obviously, I would advocate for it to come into my State, but we would love to be able to do that type of research.

We are lucky. We border Maryland, and that is where our CWD is found in the wild, near where we border Maryland. We are lucky that we haven't had any in the captive cervids, but that is also a measure of, we are testing very heavily on the captive cervids. I know we are testing a lot of animals in the wild. Our DNR is doing that. We need to have that testing from the top down.

The information sharing, because some of this, the Centers for Disease Control on the human side has put out the warnings on, don't consume an animal that looks infected, debone your meat to make sure you are not going in and eating the lymphatic or the nervous tissue.

So there is a concern on the cross side with human, which is affecting the hunting, but we also have to look at what are

those going to cost to our health care costs on down the road, should this disease make a jump. We do have unknown diseases that crop up from time to time. I think we should always have that ever present in our mind, what is this going to do to the human cost, as well as what it is doing to our wildlife cost.

Because of that connection and importance, funding this properly, I think, is very important.

Senator Cardin. Yes, sir.

Mr. Nesvik. Senator, excellent question. I have a couple additional thoughts, and I would agree with my colleagues here on what they just testified to.

I would also add that, specifically, with this particular disease, as the Chairman pointed out in the beginning of the hearing, it is so much different than other types of diseases that we are familiar with. Literally, if this disease, because of the recommendations that come from the Centers for Disease Control and the World Health Organization about not consuming meat that comes from an infected animal, it has the potential to affect the way we manage wildlife across the entire United States.

Right now, hunting is at the core of our model for being able to fund wildlife management, and also be able to manage those herds. If that is threatened by diseases like this prion disease that we know so much less about than we do like a

bacteria or a virus, it really brings to the highest priority a prion disease as a focus for what is contemplated in this bill. I believe that because of that, we should put our focus here and not on any other diseases right now. This has to be the priority, from my perspective.

Senator Cardin. Thank you. Thank you, Mr. Chairman.

Senator Barrasso. Thank you very much. Senator Capito.

Senator Capito. Thank you, Mr. Chairman, and thank the witnesses here. I have learned a lot about something I didn't know a whole lot about. So I really appreciate it, as Senator Inhofe said.

Commissioner Leonhardt, let me ask you, in your testimony you talked about how you have the captive and the wild and your area of expertise, or where you are in charge, is in the captive deer, and that you test every captive deer for meat for CWD. Is that correct?

Mr. Leonhardt. Yes, Senator. Every deer that goes to slaughter for meat, we take a sample before the meat can be consumed. That sample is tested to make sure it is safe for human consumption. On the hunting side, we only test 10 percent.

Senator Capito. Right. Okay. How do they determine what those 10 percent are? Do you know?

Mr. Leonhardt. It is random.

Senator Capito. Is it random, or voluntary?

Mr. Leonhardt. Yes, it is random. It is voluntary.

Senator Capito. Does it take two to three weeks for the test to come back?

Mr. Leonhardt. No.

Senator Capito. No. Can you get it done in a couple days?

Mr. Leonhardt. I believe that is the case.

Senator Capito. Is that a unique model to West Virginia, or do other States like Wyoming and others have a bifurcated system depending on how they oversee their herds?

Mr. Leonhardt. I really don't have a good answer. I can get that information for you, Senator.

Senator Capito. Thank you.

Mr. Leonhardt. I will say that West Virginia is actually looking to other States that have captive herds, and we are starting to develop our emergency action plan should we find a case of CWD within a captive herd. Just like we do whether it be avian influenza for our poultry, or whether another disease comes into our livestock industry, we are developing an emergency action plan for chronic wasting disease in captive cervids. Then we will tabletop that exercise to make sure all agencies are involved.

Senator Capito. Thank you. I know that you have worked a lot to try to modernize the lab at the State agricultural lab,

and we also have a federal USDA lab in the eastern panhandle, as well. I think West Virginia could play a big role in better research and development, such as what is desired in this bill.

Let me ask you, in terms of the hunting issue, the public perceptions, and Mr. Fosburgh sort of got into this a little bit. Honestly, I can't even think in West Virginia that I have actually seen a public service announcement or some kind of warning or a whole lot of talk. We are a big hunting State.

Are these kinds of things going on, or is it just sort of left to the DNR and to the Ag to inform the hunter or the domestic deer owner population? How does that information get out?

Mr. Leonhardt. I believe the DNR publishes it in their hunting regs, so when somebody goes to look up the deer hunting regs for this year, they will see a blurb on chronic wasting disease in there.

Senator Capito. Mr. Fosburgh, do you have something to add on that?

Mr. Fosburgh. Yes, I think most of the States do give that same warning in their regs on CWD, particularly the ones that have it. There is also a fine line between raising awareness about it and panicking people.

Senator Capito. Right.

Mr. Fosburgh. You will see a bunch of these articles about

zombie deer and things like that, and I get scared. And I eat a lot of deer. I think that what we are trying to do is have a responsible approach to have people understand what it is; there is a way we can fight it; it is not the end of the world right now. It is also, we have got to take this seriously.

Senator Capito. Yes. Mr. Nesvik, do you have a different perspective on that from your State?

Mr. Nesvik. No, I share that, I think Mr. Fosburgh outlined that very well as far as the concern and not overreacting to the way that this is messaged to the public. We do the similar efforts. We message this, and that is been the focus, as I mentioned in my oral testimony, this citizen working group that we formed recently was to increase awareness across the State just so folks understand what it is and what the potential implications are.

In response to one of your questions to the Commissioner, we do a three-pronged approach to testing. We have our agency folks target and surveillance specific animals. If they see an animal that looks like it is exhibiting clinical symptoms of the disease, they will remove that animal so it can be tested. Then we also, hunters can voluntarily submit their sample, if they wish to have it tested, and that typically, the turnaround is about two weeks. Then we also set up surveillance check stations where we ask hunters to let us take a sample as they

are leaving the field with their harvested animals.

Senator Capito. I would really encourage the more professionalization as we look at this, we are realizing that it has been, like Senator Inhofe, I didn't realize it has been around as long as it has. You can see the spread of it. I am sure Oklahoma, like we said, if it doesn't have it, it is going to get it. It is almost an inevitability, especially if you are close regionally.

What I think is really interesting from the CDC's perspective and from the perspective of the animal health, a lot of these research entities, there is cross-pollination of information. We may learn something as we do a deeper dive into chronic wasting disease that could actually help us with other diseases that are human-borne diseases. I think the support at the federal level for that type of sharing of information and research is exceedingly important, so thank you for what you are doing. Thanks again, Commissioner, for being here.

Senator Barrasso. Thank you, Senator Capito. Senator Braun.

Senator Braun. Thank you, Mr. Chair.

Listening to the testimony, I was trying to see if there was anything optimistic or any good news within what we are dealing with. It sounds like a disease from hell. Sixteen years of viability, 1,700 degrees to kill it through heat.

I did see one thing that caught my attention. That would be that, of course, in Wyoming you have got mule deer, elk, white-tailed deer, and moose. In Indiana, we just have white-tailed deer. When it comes to the economic consequences, we have mentioned all the fees and of course tourism, the motels, all the economy that is generated.

There is another aspect. I have managed forest ground for probably 35 years. Twenty, 25 years ago, hunters actually leased ground, and it is the only cash flow you have outside of the timber harvest to maintain your woods between harvests. That is a significant market. It used to be, I would never believe anybody would pay you to hunt, but it is up to \$25 an acre in places like Indiana, so it is a big deal.

The other thing that caught my attention was that the fact that it was only found in one moose out of 1,120 tests. There was also an observation that it has been static and maybe slightly declining. I think you have had it in Wyoming for 35 years or so.

I would like to know more about, to me, the most empirical piece of evidence would be what are your deer herd populations doing in the midst of this. We track that down to the number harvested each year in Indiana. What are you seeing in harvest numbers and herd numbers in general?

Mr. Nesvik. Yes, thank you, Senator, excellent question.

I would just say that, first, we have seen in certain parts of the State the prevalence where the number of deer as a proportion of the population that have the disease has flattened, and in some cases, it has even declined a little bit. The other side of that is, is that the distribution in the State has continued to move every year. Every year we have several new deer hunt areas in the State where the deer have CWD.

Has this created directly a decline in deer populations? We only know of a couple of places where that potentially happened directly related to CWD. There are a lot of other factors that contribute. We do think, though, in places where we already have other stressors in the environment, like habitat conditions or predation, that CWD can be a contributor that can actually exacerbate a problem that already exists.

I will tell you, on the bright side of things, as you mentioned, really, we don't see this in moose commonly at all. We have only had one. They just had in Montana the first ever this fall. They detected it in a moose here a couple months ago.

In an elk, only about 25 percent of our State's elk herds have CWD in them. Typically, in elk, it runs in a much lower prevalence level, even in the endemic area where it started in our State. Usually, it is 6 percent to 12 percent is the prevalence rate, whereas deer in the same exact area will

sometimes run as high as 50 percent.

It is less in elk, more in mule deer, and that is what we have seen. I can't say that we have seen a direct impact to license sales because of CWD, but it is certainly a concern of ours for the future.

Senator Braun. Well, that tempers it a bit. I think the fact that it would always be that fear or concern of transmissibility from animals to human beings. That would be a thing that would cascade everything into a catastrophe.

It sounds like, though, from what you have observed over 35 years, it does have some self-regulation to it, to where it doesn't wipe out. Like in Indiana, we deal with, Senator Cardin mentioned it earlier, I think this whole, when we see hunting trends in general starting to go down, that it is going to be, and this legislation to me makes sense because I think that if we keep it out there to where we can authoritatively say that it is never going to be transmissible.

I don't know, are there other diseases through prions that have affected human beings? Is there anything? I saw feral swine is a possibility. Could you comment on that?

Mr. Fosburgh. Mad cow disease. The outbreak happened in England. It is another prion-based disease.

Senator Braun. And that is the only one where it is gone from an animal to a human being?

Mr. Fosburgh. Well, Creutzfeldt-Jakob Disease is the one that is in humans, but these are all variations of the same thing. I am not sure if scrapie has ever jumped to humans. Not that I know of.

Mr. Leonhardt. We don't know that scrapie has.

Senator Braun. Very good. Glad we are doing the hearing on this, and I look forward to seeing what we can do here, because I think we are catching it at a point in time to where hopefully we can at least build some confidence out there among hunters that we know more about what is going on. Thank you.

Senator Barrasso. Senator Boozman.

Senator Boozman. Thank you, Mr. Chairman. I agree with the Senator from Indiana. We appreciate our leadership on both sides having this really important hearing that affects the entire Country in so many different ways.

Mr. Nesvik, a new survey by U.S. Fish and Wildlife says that presently, 5 percent of Americans 16 years or older hunt. Fifty years ago, it was twice that. They are telling us also that in the next decade or so, the numbers are continuing to really plummet.

Certainly, with chronic wasting disease being a major problem in Arkansas, this is not helping the situation. As you guys know better than anybody, you couple that with declining fishing and the other outdoor activities, it really means a lot

less dollars to be able to have to use for the programs that are so, so very important that affect our outdoor life.

I guess the real question, one of the things we are talking about is Senator Barrasso's legislation. He has another bill, also, the Chronic Wasting Disease and Transmission in Cervidae Study Act. Again, if we were able to get these things legislated, how is that going to affect you? Is that going to make a dent in this? Is it going to be a good thing or a bad thing or a great thing?

Mr. Nesvik. Well, I can tell you, Senator, that I think that number one, we have to do something. This is a serious enough national problem that has the potential to affect our model for managing wildlife that we have to do something. Failing to address it because it is complicated is just not the way we roll in this Country.

I think this is an opportunity for this committee and for everybody involved to lead and to provide some opportunities to look at solutions to this thing. I agree with you that there is definitely concern. Even if we didn't have this disease, there would be concern with participation in hunting. I can tell you that addressing this is very important, I think, to that future.

I think also that we are very fortunate in Wyoming. We are a State that hunting and fishing is part of our culture, and we have not seen those declines like we have nationally, but we are

concerned about that as well. One of the things that I am very passionate about is that we, I think that the best thing we can do today to ensure that we continue to have people that care about wildlife in the future and that are willing to participate, is to inspire a kid, and it is for life. That is something that we believe strongly in in our State, and we are promoting heavily right now because I think that is the best thing that we can do.

Senator Boozman. The draft legislation would establish a taskforce which would be charged with submitting an interstate action plan within one year after appointment of its members. The interstate action plan would detail how the States and Federal Government can work together to achieve consistent management, public education, and research practices relating to CWD.

The report must describe the progress on the implementation of actions identified in the interstate action plan, updated resource requirements needed to reduce and eliminate CWD in the United States, any relevant updates to the recommended best management practices included in the interstate action plan, new research findings and emerging research needs and any other relevant information.

How would that help you if you had that kind of information, going forward and coping with something like this?

Maybe even a great template as these things are going to come up in the future.

Mr. Nesvik. Certainly. So I think, Senator, to answer your question, what that does is it provides a framework so that all these different efforts that are going on right now, all of these different entities that I mentioned earlier, States, Federal Government, non-governmental organizations, scientists, are brought together in a unity of effort so that we can be more efficient with resources.

I think that if this was to pass and we were to provide that report with a suspense, I really like that. It forces action in a short amount of time. It doesn't allow bureaucratic drag; you have to do this in one year. I think putting that kind of emphasis on it like is outlined in the draft bill gives those that are going to have to deal with this and make decisions on it framework, focus, and priority, in order to get this done in a short amount of time. I think that is how it helps.

Senator Boozman. Thank you, Mr. Chairman. Thank you.

Senator Barrasso. Thank you, Senator. Senator Gillibrand.

Senator Gillibrand. Mr. Nesvik, to date there is only been one occurrence of chronic wasting disease in New York in Oneida County in 2005. No new cases have occurred in New York since. However, the disease remains a serious threat to our white-

tailed deer population, particularly given recent detection of the disease in Pennsylvania, our neighboring State to the south.

What are the most likely pathways for the spread of chronic wasting disease into areas where it currently does not occur, and what more could States be doing to prevent the spread of chronic wasting disease into our State through those pathways? Are there best practices that can be employed?

Mr. Nesvik. Senator, there are probably two pathways that are known to most wildlife managers. One is through the spread of just animal to animal contact. We don't know a lot about the mechanics of how the disease is transmitted from one animal to the other, but we do believe it happens from animal to animal contact, or because it is persistent in the environment somehow. Contact with concentrations of the prion in the environment exposes animals to it and allows an animal to become infected.

The second way is through anthropogenic methods where deer are moved, deer or elk are moved from one State to another through commercial operations. Those are the two pathways that I think most wildlife managers would agree are the primary transmission modes.

Senator Gillibrand. In the animal to animal transmission, is that through contact? Is it airborne? Is it through feces? What is the transmission?

Mr. Nesvik. Senator, there is not any good information

that indicates it is airborne, but nose to nose contact, through breeding, potentially through exposure to waste on the ground are probably where most scientists would look towards now with the current evidence that we have.

Senator Gillibrand. Mr. Fosburgh, given the large number of wildlife management issues facing our States, from threatened and endangered species protection, to other wildlife diseases, do States have the financial resources and technical expertise to adequately prevent and address outbreaks of chronic wasting disease, and what are the impacts on a local and regional ecosystems and environments when an outbreak of chronic wasting disease occurs in wildlife populations?

Mr. Fosburgh. I will tackle the first question first, which is, do they have the resources to deal with this, and the answer is an unequivocal no. There was steady funding coming from the Federal Government through 2011, then it dried up, about \$15 million a year that went to State wildlife agencies for surveillance and testing.

Since that time, as the disease has spread, the States have had to divert resources from habitat restoration programs, reinforcement programs, from research, to dealing with the CWD crisis, which is why we have \$15 million in the House Ag Appropriations Bill that has come over to the Senate right now. We hope the Senate will agree to that number from the House, as

opposed to the \$2.5 million it has provided because I think that money to the States is critical.

Second, in terms of the impacts on the ecosystem when the disease arrives, there is not much visible impact that you can see, but what needs to happen is you have to reduce deer herd pretty significantly. A State like Illinois, which got it and had a very aggressive response, went out and basically killed a lot of deer and had hunters as part of the solution, it has really kept the disease at background levels, less than 1 percent. Whereas other States are taking a more laissez-faire approach and seeing it blossom to 50 percent prevalence in certain counties, like Wisconsin.

Senator Gillibrand. It reminds of mad cow disease. Has there been any correlative research done?

Mr. Fosburgh. Yes. They are both prion-based diseases, so we mentioned scrapie.

Senator Gillibrand. Is prion a bacteria?

Mr. Fosburgh. Prion is not a bacteria.

Senator Gillibrand. What is it?

Mr. Fosburgh. I will ask the doctor at the front of the room. It is a mal-folded protein, is that correct, Senator?

Senator Barrasso. Yes.

Mr. Fosburgh. And it is one of these weird things, scary things, that people don't really understand very much about.

But you have Creutzfeldt-Jakob Disease in humans, mad cow disease in bovines and then humans, scrapie in sheep, and now chronic wasting disease in deer, all very similar. There is a prion research center at Case Western University that is digging into this, and a few other places as well. There is still a lot of research that needs to be done.

In that Interior Appropriations Bill, that \$1.72 million is being provided to USGS to expand the research into this prion-based disease, including how it is transmitted, so we will know a lot more if we get more money into the facilities that are doing this work.

Senator Gillibrand. Because mad cow disease was linked to the feed that they were being fed inappropriate proteins.

Mr. Fosburgh. Yes, they were basically turning cows into carnivores, and essentially, they were eating more cows.

Senator Gillibrand. But that doesn't give us any insights into wild deer.

Mr. Fosburgh. No, it doesn't, and again, I will to defer to somebody who actually has a science degree, to opine more on this.

Senator Gillibrand. Is there any evidence that it is bacteria-related, and that it could be tick-borne?

Mr. Fosburgh. No. There is none. In fact, that is been pretty widely debunked, if I am correct.

Senator Gillibrand. So they don't believe it is a tick-borne illness?

Mr. Fosburgh. No.

Senator Gillibrand. Thank you. Thank you, Mr. Chairman.

Senator Barrasso. Thank you, Senator Gillibrand. Senator Carper.

Senator Carper. Again, this has really turned out to be an even more interesting hearing than I would have expected. Mr. Chairman, I think we have some exceptional witnesses here. Again, we thank you for joining us.

I have two questions. One deals with public education. I think I will start with our friend from West Virginia, Commissioner. The question is, what is the role of public education in addressing chronic wasting disease? How might a federal task force help with public education, and what else could the Federal Government do to better inform the public about the risks of chronic wasting disease and its spread?

Mr. Leonhardt. That is a great question, sir. It is hard. Like we talked about earlier, how far do you alert the public in education and how far back do you create the alarm? Obviously, the people that are out pursuing the wild game, we want to make sure that they are protected, but we don't want to necessarily alert the public and make everybody think, there is this big problem going on, and there is a deer in my backyard, and I am

going to get chronic wasting disease because the deer walked through my backyard.

So we have to be careful on that public education side of things. The most important thing I think we can do on the education side is use some of our land grant institutions to do some of the research, particularly through the departments of agriculture.

Senator Carper. Could one of those be in Morgantown?

Mr. Leonhardt. One of those could be in Morgantown. There also could be one in Charleston, too, because we have two in West Virginia. West Virginia State University, we can't leave them out.

We actually, what we need to do is we need to make sure that more importantly, on the public education side is the warnings for those that are out pursuing within the containment areas, like in West Virginia, they have a containment area, and it is designated in the department regulations. Not my regulations, the DNR regulation.

Then the hunters are more aware, if they are hunting in that area, to be on the lookout for an animal that just doesn't look right. If you call the game warden, they will even come out and look at it, and they will even give you a new tag if that deer is picked up.

I also sent a letter recently to our Department of Highways

asking them to make sure within the deer containment area, the DNR-designated containment area, to make sure that they do roadkill disposal more promptly and more properly. My discussion with the Secretary of Transportation the other day, he said, yes, we are going to make an effort. We are going to pick those deer up off the road quicker.

His biggest problem is getting them buried deep enough to keep the scavengers away from them. I believe scavengers is one of the more prevalent ways that the disease is being passed.

It is just like we talked about the mad cow disease, and the Senator was talking about the feedstuff. They weren't heating the feed high enough to the 1,700 degrees to kill the prion to be used in the feed. They changed the whole process in the way the feed of animal refuse was being used to create the protein to feed the animals, so the heat processor wasn't up there. I guess it was a cost-effective thing, and that is how the disease ended up spreading.

What we need to make sure that we do is, and you know, we have had other diseases in other areas of the world, like the gypsy moth. We have a Slow the Spread program that USDA funds, and we do a spraying program, and that is an education to the public in the area where our oak trees were in trouble.

That is the type of education outreach. As we do the research, we are going to learn more and more, and then we can

do slow baby steps based on the sound science as we learn. It is very important that we do this research. It is very important that this gets off the ground so that we can make those baby steps to slowing the spread.

Senator Carper. Thank you. Let me just ask Mr. Nesvik and Mr. Fosburgh, do you agree with anything that our Marine friend has said? Do you agree with all of it, or most of it? Want to add anything very briefly?

Mr. Nesvik. Ranking Member Carper, I would agree with what the Commissioner said. The one thing I guess I would add is that the World Health Organization and the CDC have both said if you know it is infected, you shouldn't eat it.

I will tell you that in Wyoming, we know that there is been a lot of Chronic Wasting Disease infected deer and elk that have been eaten by people. Luckily, nobody has been infected. That doesn't mean that anybody should not heed the recommendations of those two organizations, but I think that is an important point for people to know. That is part of the education process.

Senator Carper. That is a good point. Thank you.

Mr. Fosburgh. I would just say that one of our frustrations is there is a naysayer community out there, led by some B-level celebrities who claim that this is all a hoax, that we don't have to worry about it, that this is a hoax perpetuated by the insurance companies to try to reduce deer numbers.

Our bottom line is, when we get something defended out of Congress, like the National Academy of the Sciences that really talks about this disease and what we need to do, we put to bed a lot of that crazy talk that is really confusing hunters and moving us backwards in some places.

Senator Carper. Speaking of B-level celebrities, I want to close on a lighter note. The Chairman and I enjoy music and sometimes have a little fun with music lyrics. When we have folks who testify before us and they point to the need for more funding for a particular cause, in many cases worthy, I recall a great song. But it turned out, I just found out, it written by Berry Gordy of Motown Records, and the name of the song is Money, That is What I Want, a Whole Lot Of, Money, That is What I Want. That is a recurring theme in this hearing room, and frankly, other hearing rooms as well.

The version of the song that is most popular, is best known, was recorded by a British group, four British lads, I think they are the Beatles. The last group to record that song that I am aware of, in terms of wildlife conservation, was a group called The Flying Lizards.

On that note, we will say thank you for being here. I asked my staff to look up the term virtuous circle, or virtuous cycle, you have probably heard that term before. Virtuous circle refers to a circle that has favorable results. There is

another term, vicious cycle, and vicious circle, it is just the opposite.

I think what we have going here is the threat of a vicious circle. There are concerns about the deer and with the deadly disease, but precedence of hunting is dropping, apparently, for deer. As the incidence of hunting that goes down, there is less revenue collected, at a time when we have a shortfall of funding. So less revenue is collected from a number of excise taxes, including from firearms, ammunition, even hunting and camping equipment, stuff like that.

It actually gets to be a vicious circle, a vicious cycle. All the more important for us to try to do something more about it and more effectively about it. Thank you very, very much for an interesting hearing and one that is timely. Thanks so much.

Senator Barrasso. Let me just close with, to Brian, today's USA Today, Money Section, they do the 50 States, what is going on in each State. For Wyoming today, it says, Cheyenne, the State Game and Fish Department says the number of hunting and fishing licenses sold to women has seen a marked increase in the past decade, even as those for men has declined a bit.

I am just going to ask, because you talked about the impact and the economies, can you talk a little bit about what you are seeing at home?

Mr. Nesvik. Yes, I don't know that I can explain exactly

why, but I can tell you that it is a very positive trend. We are glad to have new women, we support that, and we spend a lot of time trying to help certain events and certain types of programs that encourage women to get more involved in the outdoors, and it is a good thing.

Senator Barrasso. I appreciate that, and I am going to show you a picture of a deer that my daughter Hadley shot on Thanksgiving Day in Wyoming. I will get you that in a few seconds. I have been sharing with the members up here in the committee, and they are all very envious, and I think they all want to come to Wyoming hunting, because of what the wildlife is like.

If there are no more questions, members may also submit questions for the record, so the hearing record is going to stay open for two weeks.

I want to thank all the witnesses for their time and their testimony today. The hearing is adjourned.

[Whereupon, at 11:29 a.m., the hearing was adjourned.]